

Notice of Allowability

Application No.

10/518,011

Applicant(s)

OGAWA, YUUCHIROU

Examiner

Geoffrey L. Knable

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 10-4-2007.
2. ☒ The allowed claim(s) is/are 1-10, 12 and 13.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application
- ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
- ☒ Examiner's Amendment/Comment
- ☐ Examiner's Statement of Reasons for Allowance
- ☐ Other _____

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 4, 2007 has been entered.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John M. Bird on December 19, 2007.

The application has been amended as follows:

In the specification:

The paragraph beginning on page 3, line 2 has been replaced with the following replacement paragraph:

One aspect of the ~~The invention according to claim 1 is~~ characterized by a method of manufacturing a tire in which a green tire is formed by providing a tire structural member, including bead cores, around a toroidal hard core, loaded in a mold, and vulcanized to obtain a pneumatic tire, the method comprising: a step of forming a

carcass along an outer circumference of the hard core; and a step of turning up, around the bead cores, inner edge portions in a radial direction of the carcass formed on an outer surface of the hard core, by expanding outwardly in a radial direction
expanding/contracting means inserted at an inner side in a radial direction of the bead cores and/or the hard core.

The paragraph beginning on page 3, line 12 has been replaced with the following replacement paragraph:

Next, the method of manufacturing a tire according to ~~claim 1~~ this aspect will be explained.

The paragraph beginning on page 4, line 2 has been replaced with the following replacement paragraph:

In another aspect of the ~~The invention, according to claim 2 is the method of manufacturing a tire according to claim 1, is~~ further characterized in that the step of forming the carcass comprises setting an unvulcanized rubber-coated cord on the hard core from one side surface portion to the other side surface portion of the hard core, turning the cord back at the other side surface, setting the cord on the hard core from the other side surface portion toward the one side surface portion and turning the cord back again, and setting the cord sequentially along a core circumferential direction.

The paragraph beginning on page 4, line 11 has been replaced with the following replacement paragraph:

Next, the tire manufacturing method according to ~~claim 2~~ this aspect will be described.

The paragraph beginning on page 4, line 20 has been replaced with the following replacement paragraph:

Another aspect of the ~~The invention according to claim 3~~ is an apparatus for manufacturing a green tire applicable to a method of manufacturing a tire in which a green tire formed by providing a tire structural member, including bead cores, around a toroidal hard core, is loaded in a mold and vulcanized to obtain a pneumatic tire, characterized in that the apparatus includes: expanding/contracting means which can be inserted at an inner side in a radial direction of the bead cores and/or the hard core, and which expand and/or contract in a radial direction; and moving means for moving the expanding/contracting means in an internal direction or an external direction with respect to the hard core.

The paragraph beginning on page 5, line 4 has been replaced with the following replacement paragraph:

Next, an operation of the apparatus for manufacturing a green tire according to ~~claim 3~~ this aspect will be explained.

The paragraph beginning on page 5, line 23 has been replaced with the following replacement paragraph:

In another aspect of the ~~The invention, according to claim 4 is the apparatus for~~
manufacturing a green tire ~~according to claim 3, is~~ further characterized in that the
expanding/contracting means are toroidal bladders.

The paragraph beginning on page 5, line 26 and continuing onto page 6 has been replaced with the following replacement paragraph:

Next, an operation of the apparatus for manufacturing a green tire according to
~~claim 4~~ this aspect will be described.

The paragraph beginning on page 6, line 2 has been replaced with the following replacement paragraph:

In the apparatus for manufacturing a green tire according to ~~claim 4~~ this aspect,
the bladders are first inserted, in a radially contracted state, at inner sides in a radial
direction of the hard core.

The paragraph beginning on page 6, line 10 has been replaced with the following replacement paragraph:

In another aspect of the ~~The invention, according to claim 5 is the apparatus for~~
manufacturing a green tire ~~according to claim 4, is~~ further characterized in that engaging

members, which are engageable with inner edge portions in a radial direction of the carcass, are provided at outer sides in an axial direction of the bladders.

The paragraph beginning on page 6, line 15 has been replaced with the following replacement paragraph:

Next, an operation of the apparatus for manufacturing a green tire according to ~~claim 5~~ this aspect will be described.

The paragraph beginning on page 6, line 17 has been replaced with the following replacement paragraph:

When the carcass is formed by the tire manufacturing method according to ~~claim 2~~ another aspect of the invention, turn-up portions of the cord protruded inward in a radial direction from inner edge portions of the hard core are engageable with the engaging members and the turn-up portions can be provided in a proper shape (in a well-aligned manner).

The paragraph beginning on page 6, line 22 has been replaced with the following replacement paragraph:

Another aspect of ~~The invention according to claim 6 of the invention~~ is the apparatus for manufacturing a green tire ~~according to claim 4~~, further characterized in that carcass-engaging portions, which, in a contracted state of the bladders, are

engageable with inner edge portions in a radial direction of the carcass, are formed integrally with outer surfaces in an axial direction of the bladders.

The paragraph beginning on page 7, line 2 has been replaced with the following replacement paragraph:

Next, an operation of the apparatus for manufacturing a green tire according to ~~claim 6~~ this aspect will be described.

The paragraph beginning on page 7, line 4 has been replaced with the following replacement paragraph:

When the carcass is formed by the tire manufacturing method according to ~~claim 2~~ another aspect of the invention, turn-up portions of the cord protruded inward in a radial direction from inner ends of the hard core are engageable with the engaging members, and turn-up portions can be provided in a proper shape (in a well-aligned manner).

The paragraph beginning on page 7, line 9 has been replaced with the following replacement paragraph:

In another aspect of the invention, ~~The invention, according to claim 7 is the apparatus for manufacturing a green tire according to any one of claims 4 to 6, further comprising~~ comprises pressing means for pressing the bladders, when they are inflated;

toward the hard core, and press-contacting turn-up portion of the carcass with a main body.

The paragraph beginning on page 7, line 14 has been replaced with the following replacement paragraph:

Next, an operation of the apparatus for manufacturing a green tire according to ~~claim 7~~ this aspect will be described.

The paragraph beginning on page 7, line 22 has been replaced with the following replacement paragraph:

In another aspect of the ~~The invention, according to claim 8 is the apparatus for manufacturing a green tire according to claim 3, is~~ further characterized in that the expanding/contracting means comprises arm portions which can be inserted at inner sides of the hard core and rollers which are provided at one end of the arm portions, and the driving means for moving the arm portions in an axial direction and in a radial direction of the hard core.

The paragraph beginning on page 8, line 3 has been replaced with the following replacement paragraph:

Next, an operation of the apparatus for manufacturing a green tire according to ~~claim 8~~ this aspect will be described.

In the claims:

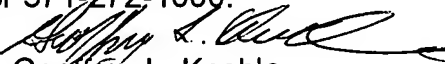
In line 1 of each of claims 4-10, 12 and 13, "apparatus" has been changed to -- combination--.

Summary of above-noted December 19, 2007 Interview: Agreement was reached on the above-noted changes to remove the references to the claims by number from the specification and to bring the preamble of dependent claims 4-10, 12 and 13 into agreement with claim 3 as amended.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Geoffrey L. Knable
Primary Examiner
Art Unit 1791

G. Knable
December 19, 2007